

# PATENT ABSTRACTS OF JAPAN

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(71)Applicant : **MATSUSHITA ELECTRIC IND  
CO LTD**

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(72)Inventor : **OTAKE SHIRO  
UNO CHIEKO**

## **(54) DIMMER DEVICE FOR SELF-EMISSION TYPE PICTURE DISPLAY**

### **(57)Abstract:**

**PURPOSE:** To keep the "brightness" of a display image constant regardless of the luminance environment at the outside of a display device and the luminance of a display picture itself by providing an equivalent light screen luminance measuring device measuring an equivalent light screen luminance to a light screen luminance in an eyeball of an observer decided by the luminance environment around a display image observed by the observer and a fovea centralis adaptation luminance measuring device measuring the fovea centralis adaptation luminance of the eyeball of the observer.

**CONSTITUTION:** The light screen luminance  $L_e$  equivalent to the light screen luminance in the eyeball of the observer decided by the luminance environment of the display image including a picture around the display image on a CRT display 5 is measured by the equivalent light screen luminance measuring device 6. On the other hand, the fovea centralis adaptation luminance  $L_f$  of the observer is measured by the fovea centralis adaptation luminance measuring device 9. A luminance difference discriminating threshold value  $\Delta L$  of the observer is obtained by adding an output signal of the 1st function converter 7 and an output signal of the 2nd function converter 10 at an adder 8. A dimmer 11 controls the luminance of the display image in proportion to the output signal of the adder 8. When the luminance environment of the surrounding is changed, the luminance  $L_o$  of the display image is controlled so that the ratio ( $L_o/\Delta L$ ) of the luminance  $L_o$  of the display image to the luminance difference discriminating threshold value  $\Delta L$  of the observer is constant.

